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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,777	03/22/2004	Charles Morris Smith	2003B026/2	4312

7590 01/04/2006

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EXAMINER

DANG, THUAN D

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/807,777

Applicant(s)

SMITH, CHARLES MORRIS

Examiner

Thuan D. Dang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/10/04, 03/22/04</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, drawn to a general process, classified in class 585/208, subclass various.
- II. Claims 17-29, drawn to an aromatic alkylation process, classified in class 585, subclass 448.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions they have different modes of operation, different functions, or different effects. While group II process is a reaction between an aromatic and alkylating agent, group I process can be any process such as dewaxing, oligomerization, isomerization . . .

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Tyus on 12/16/2005 a provisional election was made with traverse to prosecute the invention of group II, claims 17-29. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-16 are withdrawn

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from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 17-26, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venkat et al (WO 02/14240).

Venkat discloses a process of alkylation of aromatic hydrocarbon such as benzene with an alkylating agent such as ethylene in the presence of an alkylation catalyst. The aromatic feed is pretreated by contacting with molecular sieve adsorbent to remove polar compounds (the abstract; page 6, lines 27; page 9, line 23).

It appears that Venkat does not disclose that using two different sieves for the pretreating step (see the entire patent for details). However, Venkat discloses that zeolites such as 13X,

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MCM-22, medium pore zeolite such as ZSM-12 can be used as equivalent adsorbents for removing poisonous polar impurities from the aromatic feed (page 4, lines 1-7, page 7, lines 11-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Venkat process by combining both of zeolites in any order to pretreat the Venkat aromatic feed to arrive at the applicants' claimed process since it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose. *In re Kerkhoven*, 205 USPQ 1069 (CCPA 1980).

The content of water of the aromatic feed can be found in example 5.

It appears that Venkat does not disclose using a mixture of both sieves having less than about 5 and greater than about 5 Si/Al. However, It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Venkat process by using zeolites having different ratios of Si/Al to arrive at the applicants' claimed process since it is expected using any adsorbent having different Si/Al ratio, provided that they can remove polar impurities as disclosed by Venkat, would yield similar results.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Venkat et al (WO 02/14240) in view of Gajda (5,942,650).

Venkat discloses a process as discussed above.

Venkat discloses using an adsorbent having a pore diameter of greater than 5.6 angstrom, but not the same of less than 5.6 angstrom (see the entire patent for details). However, Gajda

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discloses that nitrogen compounds can be removed from an aromatic feed by using sieve adsorbent of less than 5.5 angstroms.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Venkat process by using both the sieve of greater than 5.6 angstrom and less than 5.5 angstrom of Gajda to arrive at the applicant's claimed process since it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose. *In re Kerkhoven*, 205 USPQ 1069 (CCPA 1980).

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 17-29 provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 17-29 of copending Application No. 10/900,617. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

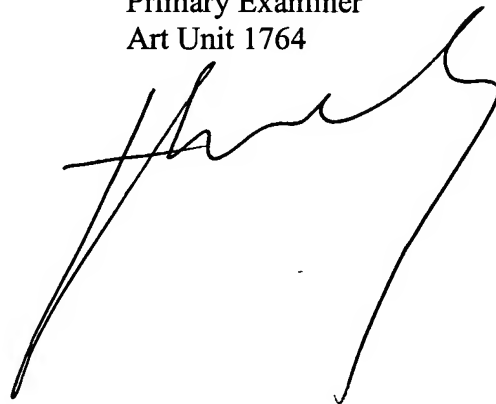
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan D. Dang whose telephone number is 571-272-1445. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thuan D. Dang  
Primary Examiner  
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A handwritten signature in black ink, appearing to be 'Thuan D. Dang', written over the printed name and title.

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